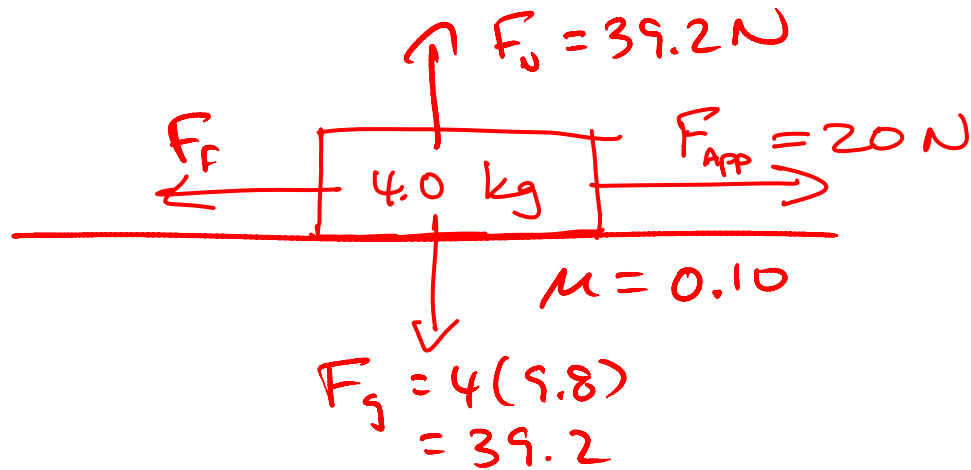


Example #6. Find the acceleration of a 4.0 kg mass when a 20 N force is applied and the coefficient of friction between mass and surface is 0.10.



$$F_f = \mu F_N = .10(39.2) = 3.92 \text{ N}$$

$$F_{\text{net}} = 20 - 3.92 = 16.1 \text{ N}$$

$$F_{\text{net}} = ma \quad 16.1 = 4a$$

$$\boxed{a = 4.0 \text{ m/s}^2}$$